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ABSTRACT

Four studies on transfer students in Washington community colleges were conducted to determine whether community colleges play an important role in the achievement of the bachelor's degree and to learn at which points Washington community college students have difficulty in completing their education objectives. The studies included a bachelor's degree survey which provided background data and information on students' experience with the transfer process; longitudinal tracking of students planning to complete a community college degree; a transfer rate analysis based on matching community college and four-year college data; and a survey of transfer-oriented sophomores who had been enrolled at Washington community colleges in spring 1988. Study findings included the following: (1) a third of all 1988 bachelor's degree recipients had transferred credit from a Washington community college; (2) among community college entrants intending to transfer, 15% of full-time students and a third of part-time students left during or after the first quarter and did not return, while about half remained enrolled for at least four or more quarters over 2 years; (3) in the 3 years following exit from their community college, 84% of the transfer-bound students had transferred to a four-year institution; (4) for all new Washington community college students completing at least 18 quarter credits in college-level courses, 33% transferred within 4 years; and (5) among transfer students, 56% were still enrolled in their transfer institutions after 3 years, and 34% had graduated with a bachelor's degree. (Contains data tables and 16 references.) (PAA)

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Operations Report
No. 94-1

ED 365 395

TRANSFER OUTCOMES

IN WASHINGTON COMMUNITY COLLEGES

A Baseline Report on Transfer Student Outcomes

A Report Prepared by the
State Board for Community and Technical Colleges

January 1994

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EXECUTIVE SUMMARY

There is a paradox in the role community colleges play in the achievement of the bachelor's degree. On the one hand it is clear that, as Norton Grubb has said:

> "....community colleges have been a more important route to the BA degree for students of relatively high abilities and aspirations from lower income and class backgrounds, consistent with the image of being an alternative route for students who are 'college material' but whose resources and family circumstances keep them out of four-year colleges." (Grubb, 1991).

On the other hand, a survey of the research literature shows that those who start at a community college have considerably less likelihood of graduating with a bachelor's degree than those who start at a four-year institution. This finding holds true even when controlling for background characteristics and intent to get a degree (Pascarella and Terenzini, 1992). The research shows that students intent upon achieving the bachelor's degree who start at the community college must have a lot going for them as the odds of achieving that end are high. There are three points at which students could discontinue their pursuit of the bachelor's degree: while enrolled at the community college (high attrition rate), at the point of transition to four-year institutions (low transfer rates for those who complete their community college studies), and during enrollment at the four-year institution (low graduation rates after transfer).

This report summarizes four studies done on transfer students in Washington community colleges to determine whether community colleges play an important role in the achievement of the bachelor's degree and to learn the extent to which Washington community college students have difficulty at each of the three points described above.

The findings from these descriptive studies show that:

- Washington community colleges play a vital role in the award of the bachelor's degree in the state of Washington. A third of all graduates took part of their studies at a Washington community college. Those who started at the community college represented students with lower socio-economic status than those who started at the four-year college.

- There is considerable attrition among students who start community colleges with the goal of transferring. Much of that attrition occurs very early on - during or immediately after the first quarter. About half continue their community college enrollment for a second year. African and Native Americans and Hispanics had the highest attrition rates. Students enrolled part-time had considerably higher attrition than did those enrolled full-time.

- Most who complete a year or more of study at the community college in preparation for transfer make a successful transfer to their first choice four-year institution (84 percent transferred and of those, 93 percent attended the their first choice college). There was no difference in the transfer rate for sophomores based on race or ethnic background.

- Most who successfully transferred either were still enrolled (56 percent) or had graduated with the bachelor's degree (34 percent) within three years of leaving the community college. Time to graduation is longer for transfer students than for native students at the four-year institutions. Those who completed the associate degree prior to transfer were more likely than those without credentials to have graduated with a BA degree three years later.

In summary, community colleges play a critical role in providing a path to the bachelor's degree in Washington state, as they do in the nation. It is early in the student career at the college where transfer oriented students are most likely to encounter difficulties which preclude immediate goal achievement. Once

students progress to their sophomore year, their chance of transferring and graduating or continuing to make progress at the four-year institution is quite high. Thus Washington community colleges can improve transfer rates by focusing on strategies that improve the chance of student success early in their educational careers. This report provides a summary of such strategies.

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INTRODUCTION

Washington community colleges play a vital role in the attainment of the bachelor's degree in Washington state. Research shows that a third of all bachelor's degree recipients began their education at a Washington community college. Each year more students enroll to prepare for transfer and with the exception of years when four-year institutions turn away admissible students, the number of students who successfully transfer has been growing rapidly as shown in Table I.

Table I
Washington Community College Students Accepted as Transfers
By Four-Year Institutions

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
Public Four-Year	6,501	6,823	6,960	7,618	8,405	7,857	8,770
Independent Colleges	1,890	1,800	2,030	1,840	1,750	1,850	2,200
Other	200	207	336	267	246	211	250
TOTAL	8,586	8,830	9,326	9,725	10,401	9,918	11,200
% Change		+2.8%	+5.6%	+4.3%	+7.0%	-4.6%	+13.1%

Source: Public Four-Year: OFM HEERS Table 12. "Transfers" include only those who had not previously enrolled at the four-year institution and who last enrolled at a community college before transfer. A less exclusive transfer number including all transferring credits from the community college would likely be 10 percent higher than figures reported here. Annual independent college number is estimated from the reported fall transfer number. "Other" includes Portland State University and the out-of-state four-year institutions offering degrees at military bases in Washington.

While some 11,000 students successfully exit the community college as transfer, about 24,000 students enter the colleges each year with the intent to transfer. The flow into the college is double the successful flow out, suggesting "leakage" of some sort between entry and transfer to four-year institutions. Once accepted as transfers, community college transfers take considerably longer than four-year natives to complete bachelor's degrees. Data reported by the Higher Education Coordinating Board (HECB) show that transfers take one to two years longer to complete the degree than native students.

Much of the national debate about community college role in transfer focuses on data showing these high attrition rates and slow rates of progress to the bachelor's degree for those who start at community colleges. In light of the national debate and consistent with Washington state's outcomes assessment initiatives, the State Board for Community and Technical Colleges (SBCTC) undertook a series of research projects to learn more about transfer student outcomes. Specifically this report addresses:

- Role played by community college in the achievement of the bachelor's degree
- Persistence of transfer-bound students while enrolled at the community college
- Success of transfer-bound students at the point of transition to four-year institutions
- Progress during enrollment at the four-year institution

The studies described in this report were conducted as part of a larger assessment initiative in Washington community colleges which also includes efforts to foster assessment activities at individual community colleges. The goal of this effort is to integrate regular, ongoing evaluation into college planning and decision making processes and faculty/student teaching and learning practices. The November 1993 report to the Higher Education Coordinating Board, Community College Student Outcomes Plan, provides a summary of the assessment initiative activities.

The assessment research to date has led SBCTC to conclude that students who make substantial progress at their college generally do well in their transition to productive employment or baccalaureate institutions. At the same time, analysis of retention data suggests that many students leave the college early despite goals requiring substantial time at the college. This report echoes this general finding.

REVIEW OF LITERATURE

A review of the literature on community college transfer reveals some contradictory findings and perspectives inconsistent with the perceptions of college administrators and faculty. This review of the research literature, especially studies which are literature- or theoretically-based, may serve to reconcile different perceptions on the issue of the extent to which students planning to transfer actually achieve their goal.

TRANSFER RATES

Some researchers estimate that between five and 25 percent of all community college students who aspire to the baccalaureate degree actually achieve their goal (Richardson and Bender, 1986; Bensimon and Riley, 1984). Other studies show that 11 percent of the total community college group will attain a four-year degree (Adelman, 1988). Still other research shows that between 20 and 25 percent of an entering cohort will transfer in a specified time period (Adelman, 1988; Palmer & Eaton, 1991). Much criticism of community colleges has been based on these transfer rates, regarded as dismally low rates by those who believe that most students plan to transfer. Further, since more than half of all Hispanics and nearly half of all African American students are enrolled in community colleges, these low rates of bachelor's degree achievement have led some to wonder if community college enrollment is not actually a hindrance to students of color (Nora, 1993).

Criticism of community college's role in achievement of the bachelor's degree does not ring true for faculty and administrators. In contrast to what is described in the literature, administrators and faculty know personally students who would not have been admitted to four-year institutions but who have achieved the BA degree via the community college. College staff are more familiar with these success stories than they are with the circumstances of students who drop out in their first quarter.

INTENT TO TRANSFER

A question central to these value judgments about community college's transfer role is the issue of how many community college students intend to transfer and complete a bachelor's degree. The National Postsecondary Student Aid Survey (NPSAS) of a sample of fall 1986 students found that 18 percent of those enrolled in community college aspired to the BA degree (Grubb, 1991). Many transfer researchers widely believe that most community college students desire the bachelor's degree, citing baccalaureate-degree intention for community college students ranging from 51 to 74 percent (Richardson and Bender, 1986, Nora and Rendon, 1990). Amaury Nora, for example, states "the majority of minority students attending community college enroll in order to prepare themselves for transfer to four-year universities." (Nora 1993, page 216).

The different findings and perceptions may be explained, though not reconciled, by observing differences in the subsets of students upon which researchers base their studies. For example, in Washington data for different subsets of students can be used to agree with estimates that between one-third and one-half of students aspire to transfer and, by extension of the logic, most of those aspire to the BA degree. In fall 1992, 35 percent of all students enrolled for the purpose of preparing for transfer to a four-year institution. Looking instead at the plans of degree-seeking first time students results in a planned transfer rate of 51 percent. These Washington rates are considerably higher than the NSPAS data due to the high full-time enrollment in Washington (50 percent full-time). At the same time the rates do not approach the 74 percent level cited in some research and call for the insertion of the word "slight" in front of majority in the statement quoted above.

On campus, college administrators and faculty are well aware that no single purpose summarizes the intent of a majority of community college students. Student purposes for enrolling are sufficiently complex that in comprehensive community colleges the major missions of job training, upgrade training, transfer, basic skills development and community service each represent no more than two out of five students and frequently "don't know" is the most meaningful statement of student intent.

ROLE IN ACHIEVING THE BACHELOR'S DEGREE

The research on the role of community college in awarding the bachelor's degree is also somewhat confusing. It is now normative for a BA recipient to have transferred rather than receiving the degree from the first institution attended. A review of the National Longitudinal Survey (NLS) data found that 60 percent of those who attained the bachelor's degree had attended two or more colleges.

However, analysis of the same survey data found that of those earning a BA, only 14 percent from the high school class of 1972 started at community or technical colleges (Grubb, 1991, page 211). Grubb also found that a larger percentage of the low and middle socio-economic status and low and middle ability BA recipients came from the community colleges. Given this special role that community colleges play in the mix of individuals who eventually obtain the degree, some researchers argue that even though the route to the degree may be difficult via the community college, these colleges provide a door that otherwise would not be open for certain individuals.

PERSISTENCE AT THE COMMUNITY COLLEGE

Much of the transfer research deals with the critical issue of student persistence at the community college. Colleges must first retain students for the period needed to prepare for transfer if students are to successfully transfer and eventually obtain the BA degree. The research shows fairly consistently that the factors over which colleges can exercise some degree of control and which most directly influence retention are: (1) financial aid, (2) integration into the academic community, meaning the degree of affiliation with the college academic environment both in the classroom and outside of class, (3) social integration on campus, that is the degree of affiliation with the college social environment in the classroom and outside of class, and (4) educational goal commitments, the degree to which students are committed to attaining a particular degree or certificate.

Social Integration: The chief inconsistency in the research relates to the extent to which social integration is a factor in student retention at community colleges. A review of retention studies at community colleges found no support for the social integration variable as explanatory in community colleges (Grosset, 1989). This finding may, however, be related to the way in which this variable was measured in these studies. Some studies measured social integration with a single satisfaction rating related to the student's campus social life. A more complex operational definition including interaction with faculty and with peers may have resulted in different findings.[1]

Financial Aid: In a review of research on the relationship of financial aid and retention, it is clear that there is a positive effect of financial awards on retention and the effect is stronger for those attending community colleges than for those at four-year institutions. Indeed financially related factors may explain a good deal of the reason students in general and students of color in particular are not retained long enough to prepare adequately for transfer (Nora, 1990).

Basically this research-based theory of student retention states that students who are more committed to earning a BA and believe the community college provides an opportunity to do that are more likely to be better integrated socially and academically at their college. If those same students have access to adequate

[1] For a detailed discussion of alternative operational definitions and a proposal for a definition providing interval data with metric properties, see Dowaliby, Garrison, and Dagel (1993).

financial aid, they will be among the students most likely to achieve their final goal. Conversely, students who are not clear about their goal commitment, who feel that the community college is a poor alternative for them, or who have strong commitment to and satisfaction from work, will be less likely to be retained. The research further suggests that with the exception of Asian Americans, students of color are more likely than whites to have one or more characteristics of the latter group.

POINT OF TRANSITION

While there have been many individual college or state system studies regarding transition issues, there have been no national or longitudinal studies of what happens to students at the point of transition from community college to the four-year institutions. State and college based studies focus on GPAs immediately upon transition and state or institutional policies and their role in promoting transition.

DURING ENROLLMENT AT FOUR-YEAR INSTITUTIONS

The NLS provides data on the percentage of students who successfully transferred and later completed a bachelor's degree. In reviewing the data, Grubb found that for the class of 1972, of those who transferred with the associate degree, 59 percent had completed the bachelor's degree within seven years of starting college. For those who transferred without credentials, 38 percent had completed the degree in a similar time period (Grubb, 1991, page 220). Few other studies have looked at the BA degree completion rate following successful transfer but instead have looked at BA degree completion from entry to college.

APPLIED RESEARCH IN WASHINGTON COMMUNITY COLLEGES

As part of its ongoing research effort, the State Board for Community and Technical Colleges has conducted four studies related to transfer student outcomes. This report is based on findings from these studies.

- **Bachelor's Degree Survey:** A survey of a random sample of recipients of the bachelor's degree at independent and public four-year institutions. Of the 565 graduates surveyed, a third had taken classes at a Washington community college. The survey provided background data and information on student's experience with the transfer process. See **Spring 1988 Bachelor's Degree Survey: A Study of the Role of Community Colleges in the Achievement of the Bachelor's Degree in Washington**, Operation Report No 89-1.

- **Student Progress Tracking:** A longitudinal tracking of students planning to complete a degree at their community college to determine their rate of progress. SBCTC has tracked the 1990 cohort for three years and the 1991 cohort for two years. SBCTC has analyzed student progress for various groups by student purpose, including transfer; by race and ethnic background; and by full-time or part-time status during the first quarter of enrollment. See Student Success section in the **Fall Enrollment and Staffing Report** for 1992 and subsequent years.

- **Transfer Rates:** Transfer rate analysis based on data matching with four-year public and independent colleges. Washington participates in Transfer Assembly Project, an effort to develop a national transfer rate. The project uses a rate calculated for the total cohort of new students in college-level courses, regardless of purpose for attending, for students who had completed at least 18 quarter credits at the community college. Transfer rate data are calculated for the entire cohort and by race and ethnic background. In addition, SBCTC looks at transfer rates for all new college-level students regardless of credits earned and for those who complete a college level English or math course.

- **Survey of Academic/Transfer Students:** A survey of a random sample of transfer-oriented sophomores who had been enrolled at Washington community colleges in spring 1988. The questionnaire provided data on rates of actual transfer and subsequent progress at the four-year institution, barriers to transfer, satisfaction ratings of community college services and comparative evaluation of faculty at the community college and four-year institution. The survey was conducted by mail and phone with 831 respondents out of a sample of 1,604. For information on the survey process and sample design, see **Background Consideration: Washington Community College Survey of 1988 Academic/Transfer Student Conducted Spring and Summer 1991**.

ROLE IN ACHIEVING THE BACHELOR'S DEGREE

Community colleges in Washington play a significant and unique role in the achievement of the bachelor's degree. The study of the BA graduates in Spring 1988 found that:

- A third of all graduates transferred credit from a Washington community college. The rate varied by type of institution:

Regionals:	48%
Research Universities:	29%
Independents:	22%

  While no follow-up research has been conducted, given the rising number of students accepted as transfers and the changing mix of upper versus lower division students at the four-year institutions, it is likely that the community college plays even a larger role in the bachelor's degree today than when the research was conducted.

- Graduates who transferred credits from community colleges were more likely than native students to be first generation, older, working, independent of parents, and to have had poorer grades in high school. The variables described in Table II suggest that community college transfers represent a lower socio-economic status than four-year natives, although that variable was not specified in the study.

Table II
Differences Between BA Graduate Transfers Versus Natives

	Community College Transfers	4-Year Natives
First Generation College	70%	40%
Median Age	25.5	23
Full-Time Employed	21%	9%
Independent of Parents	58%	29%
Entered from High School	63%	88%
High School GPA	3.0	3.4

Four-Year Natives: Those who started and completed their BA degree at the same institution.
Source: Bachelor's Degree Survey, 1988.

- Among those achieving the bachelor's degree, community college transfers were no more race and ethnically diverse than the population of native students. The community college transfer graduates were eight percent students of color and the four-year native graduates were 10 percent students of color.

Except for race and ethnic diversity, much of the other diversity in the characteristics of graduates of the Washington baccalaureate institutions is due to the transfer from community college.

PERSISTENCE AT COMMUNITY COLLEGE

In order to transfer, the student must be retained sufficiently to prepare for transfer. Most students must be retained for three or more quarters before they can successfully transfer. In Washington, just nine percent of transfer occurs during the student's first year. Two thirds (66 percent) of Washington community college students transfer with 90 or more credits or the associate degree.

There are numerous protocols for looking at persistence for transfer-bound students. To account for stop-out patterns and diversity of student objectives, SBCTC uses as a measure of student retention the progress made by subgroups of students based on their planned length of attendance. For purposes of assessment, SBCTC uses the pattern of progress for students planning the degree (about 41 percent of full-time and 18 percent of part-time students) as proxy for the progress of all students. Analysis of the large group of students planning to enroll for a year but not planning a degree shows an almost identical pattern to that of the degree-bound students.

Students planning a degree are categorized as having made "substantial progress" if they enrolled for four or more quarters over two years, "some progress" if enrolled for two or three quarters, and as "early leavers" if they do not return at anytime subsequent to the first quarter. Data for the past two years show that for transfer students planning a degree, about 15 percent of full-time students and one-third of part-time students leave the college during or after the first quarter and do not return. Overall about half make "substantial progress" toward their degree (see Table III).

Table III
Progress of Students Planning a Degree
Two Years After Entering the Community College
(State and Contract Students Entering in Fall)

		Substantial Progress	Some Progress	Early Leavers
Transfer Students				
1990	Full-Time	59%	27%	14%
	Part-Time	34%	33%	33%
1991	Full-Time	58%	28%	15%
	Part-Time	35%	30%	35%

Substantial Progress: Attending four or more quarters over the two year period.
Some Progress: Attending two or three quarters over the two year period.
Early Leavers: Attending only the first quarter and not returning in two years time.

Source: SR1181, for students planning to complete a degree at their college.
Colleges may schedule Job Number SR1381J for data by college.
Note: Totals may not add to 100 percent due to rounding.

Looking just at full-time students leaving the college during or immediately after their first quarter without transferring and without returning in a two year time period shows that the rate of leaving within that first quarter was much higher for African Americans, Native Americans and Hispanics than for Asian Americans and whites. See Table IV.

Table IV
Percent Early Leavers Among Full-Time Degree-Seeking Students[2]
Fall 1991 Cohort Followed for Two Years

African American	24%
Asian/Pacific Islander	13%
Hispanic	20%
Native American	21%
White	16%

Early Leavers: Attending only the first quarter and not returning in two years time.

Source: SR1181 for students planning to complete a degree at their colleges. Colleges may schedule Job Number SR1381J for data by college.

Similar analysis shows that enrolling in developmental courses in the first quarter does not improve or detract from these student progress rates (SBCTC, 1994). Assuming room for more transfers at the four-year level, a strategy benefitting students wanting to transfer would be improved retention of students during their first quarter at the college. To improve transfer rates for African Americans, Native Americans and Hispanics also requires improvement of student retention.

[2] Data reported here are observations over two years. Analysis of the same students over a three year period show only minimal return (one percent gain) of "stop-out"students. Data are for all students planning a degree. While data are available for transfer students only, collapsed data were used to maximize the size of each race and ethnic cohort and thus minimize the impact of individual variance. This choice results in very slightly higher attrition data than analysis of only transfer students. While there is little difference in the attrition pattern for transfer and job preparatory students, those enrolled for other purposes tend to have higher attrition rates.

POINT OF TRANSITION: COMMUNITY COLLEGE TO FOUR-YEAR INSTITUTION

TRANSFERRING

The Survey of Academic/Transfer Students provided information about the point of transition from community college to four-year institution, application to the four-year institution, time to transition and institutional choice.

Applying to the Four-Year Institution: In the three year period following exit from their community college, 92 percent of transfer-bound sophomores had applied to a four-year institution - 84 percent had transferred, eight percent applied but not transferred. There were no transfer rate differences between the sophomores based on race or ethnic background. This suggests that differences in transfer rates (see Transfer Rates below) based on race and ethnic background are due to differences in attrition patterns while at the community college.

The eight percent who had applied to transfer but had not enrolled most often cited financial concerns or commitment to work as shown in Table V.

Table V
Reasons for Not Enrolling After Applying For Transfer

	% of Non-Transfers
Had Financial Difficulties	51%
Work Obligations	49%
Family Obligations	35%
Could Not Move to Campus Location	24%
Submitted Application Materials Too Late	16%
Applied But Not Admitted	7%

Source: Survey of Academic/Transfer Students, 1991. Multiple responses allowed.

Those who had not applied to a your-year institution most frequently listed financial concerns or commitment to work as reasons for not transferring at this time. Fifty-four percent selected "I don't have the money to attend a four-year institution," and 44 percent selected "Work obligations prevent my attending a four-year institution" as reasons for not transferring (multiple responses allowed). Personal crises such a child with cancer or car accident were listed by some as reasons for not making the transition to a four-year institution.

Time to Transition: The vast majority (85 percent) of those who transferred did so immediately after leaving the community college - that is the following summer or fall. Those who waited were as a group older, more likely to be working full-time, or to be parents. They cited financial difficulties and work or family obligations as reasons for not making the transition immediately after leaving the community college. In 1988, one percent of the transfer students were unable to transfer immediately because they had been placed on a waiting list by the admitting institution.

Institutional Choice: Of those who transferred, 93 percent attended their first choice institution. Of the few who attended a second choice institution, 55 percent either were not admitted or did not apply because they

felt they would not meet the standards. About a third reported that financial difficulties precluded attending the first choice institution.

EVALUATION OF PREPARATION

Satisfaction with Transfer Preparation: Students reported being moderately satisfied with the services provided at their community college. On a one to five scale, with five being "very satisfied", the mean rankings for the four services were about 3.5 as shown in Table VI. The library was the most used and highest rated service. The "percent evaluating" column is a proxy measure for the percent using each service.

Table VI
Satisfaction with Community College Services
Evaluation of Community College Transfer-Bound Sophomores

	Mean Rating	% Evaluating
Library Services	3.8	91%
Financial Services	3.6	55%
Counseling Services	3.3	72%
Career Services	3.1	66%

Scale: 1-5, 1 = very unsatisfied, 5 = very satisfied.

Source: Survey of Academic/Transfer Students, 1991.

Regarding specific preparation for transfer, respondents overwhelmingly agreed with the positive statements provided in the survey (see Table VII). They were most in agreement about adequate opportunities for interaction with faculty in and outside the classroom. One out of five students disagreed with the statement that advising for transfer was easily available, that there were no problems getting the courses needed and that transfer advising was adequate.

Table VII
Percent Agreeing with Statements about Preparation at Community Colleges
Evaluation of Community College Transfer Students

	Percent Agreeing
Opportunities to interact with faculty in the classroom were adequate	95%
Opportunities to interact with faculty outside the classroom were adequate	89%
My classes gave me adequate preparation for junior/senior course work	85%
Transfer-related information was readily available	83%
The overall quality of the transfer advising I received was adequate	82%
I had no problems getting the courses I needed to transfer	81%
Transfer academic advising was easily available	79%

Response Options: Agree/Disagree

Source: Survey of Academic/Transfer Students, 1991.

Transfer students who stayed at their community college until they achieved the status of being sophomores were highly successful at transferring to the college of their first choice and enrolling in the subsequent year. Those who were unable to make the transition reported that financial problems or commitment to work served as the chief inhibitors to transition.

TRANSFER RATES

Transfer rate calculation combine data factors at the point of transition and persistence while at the community college. Since there is little "leakage" at the point of transition, low transfer rates can be primarily attributed to attrition while at the community college.

There has been considerable debate about the manner in which transfer rates are calculated. Colleges and state offices are concerned for the potential political use of such data - to increase or decrease support of institutions partially based on the published transfer rates. In light of that potential use, they seek postponement of transfer rate reporting until the systems for such reporting can be perfected. Data systems and student intentions are not sufficiently well defined to implement the perfect measures at this time, and may never result in measures which allow meaningful inter-institution comparisons. Instead, what can be reported are proxy transfer rates. These measures are most meaningful for national aggregation, year to year comparisons, and subgroup comparisons for the nation, a state, or single institutions.

NATIONAL APPROACHES

Two proxy measures have surfaced as the chief contenders for national transfer rates. The methodology stemming from the Transfer Assembly Project is used here in Washington. That method looks at the proportion of students new to college (no prior college experience) enrolled in college-level courses (including developmental education, but excluding Adult Basic Education) who transfer within four years of entrance after earning a minimum of 18 quarterly (12 semester) credit hours (Cohen, 1992).

The other approach which has not been implemented in Washington was developed by the National Transfer Effectiveness Consortium (NETC). It calculates transfer rates for an exiting class - those who leave the college at a specified time. The exiting cohort includes all students except those who had previously attending four-year institutions and those who had not completed at least six semester credits. Transfers are calculated for the fall term immediately following the last spring at which the students attended a community college (Berman, Curry, Nelson, & Weiler, 1990).

Despite significant differences in these two approaches, they both yield "raw" transfer rates of approximately 25 percent (Palmer & Eaton, 1991). The considerable problems and benefits of these rate calculations have been recently reviewed and described by a community college institutional researcher (Fonte, 1993).

WASHINGTON RATES

Using the Transfer Assembly Project, the transfer rates for Washington community colleges are higher than for the national average - about 33 percent for the most recent, 1986, cohort. This higher rate is likely due to significant differences between students served in Washington compared to other states rather than in a more effective transfer process compared to others. Due to more than a decade of legislatively required capping of enrollments, with severe penalties for overenrollment, community colleges in Washington have served fewer people than had sought access. Those turned away tended to be part-time, casual course-takers and those who would have enrolled intermittently. As a result Washington community colleges enroll half their students as full-time students compared to the national average of 36 percent full-time.

The following Washington transfer rates are for students who started college in fall 1986 and enrolled in college-level courses. Excluded from the calculations are students who have enrolled previously at other colleges and those enrolled in Adult Basic Education or English as a Second Language. To be consistent

with the Transfer Assembly Project, the Washington rates include students enrolled for job preparation or other purposes. The inclusion of these other students results in a lower transfer rate than might otherwise be expected, but the comparisons by race group are nonetheless of interest[3].

- For all students new to college and enrolled in college-level courses, regardless of purpose for attending and regardless of the number of credits completed, **14 percent transfer within four years** of starting at the college. Despite evidence that African American students have as much interest in transfer as others (SBCTC, 1993), the rate of transfer for African Americans was substantially lower than for other groups.

Raw Transfer Rate:
% of All Students Transferring in Four Years, 1986 Cohort

African American	6%
Asian/Pacific Islander	23%
Hispanic	11%
Native American	10%
White	14%

- For all students new to college, enrolled in college-level courses and completing at least 18 quarter credits of such courses, regardless of purpose for attending, **33 percent transfer within four years** of starting at the college. This is the rate used in the National Transfer Assembly Project. The rate of transfer for African Americans was substantially lower than for other groups:

Transfer Assembly Project Rate:
% of Students Completing 18 Quarter Credits Transferring in Four Years
1986 Cohort

African American	19%
Asian/Pacific Islander	42%
Hispanic	29%
Native American	31%

- For all students new to college, enrolled in college-level courses and completing at least 18 quarter credits and the first college-level English or math class, regardless of purpose for attending, **42 percent taking English and 53 percent taking math transfer within four years** of starting at the college. The rate of transfer for African Americans was substantially lower than for other groups:

Course Threshold Transfer Rate:
% of Students Completing 18 Quarter Credits and Specific College-Level Courses, Transferring in Four Years
1986 Cohort

	English	Math
African American	28%	38%
Asian/Pacific Islander	54%	58%
Hispanic	37%	45%
Native American	41%	54%
White	42%	52%

These data show that if colleges can retain students to 18 credits and the math course, those students will have a high rate of transfer (53 percent). Helping students achieve the college English and math thresholds is a key factor in improving transfer rates in Washington community colleges.

[3] It is important to note that two out of five community college transfer respondents to the Bachelor's Degree Survey reported that they had no intention of achieving the bachelor's degree when they first started at the community college. Yet all had achieved that degree. Many students increase their aspirations while enrolled at the community college and it is likely that their educational experience contributes, in part, to that rise in self-expectation. This rise in student aspirations is a recommendation in favor of the inclusion of all students in transfer rate cohorts.

Each of these measures represents a different threshold for preparation for transfer. Some students fail to achieve each threshold, some consistent with and others in opposition to their own plans. Of the new students taking college-level courses, **26 percent persisted to the 18 credits threshold and 17 percent persisted to 18 credits and completed the first college-level English course, 11 percent persisted to 18 credits and the first college-level math class**. Given these low rates of persistence to courses appropriate for transfer, the raw transfer rate of 14 percent is not surprising. The much higher transfer rate for those who complete English or math reinforce the conclusion that students who make substantial progress (complete English or math and 18 credits, for example) do quite well at transfer.

Persistence to each threshold varies significantly by race and ethnic group as shown in Table VII.

Table VIII
New Student in College-Level Courses, Fall 1986
Persisting to Various Thresholds Before Leaving the Community College

		To 18 Credits and...	
	To 18 Credits	First College-Level English	First College-Level Math
African American	16%	10%	5%
Asian/Pacific Islander	35%	23%	22%
Hispanic	26%	18%	12%
Native American	21%	12%	6%
White	27%	18%	11%

Source: SBCTC Transfer Assembly Project Database. Colleges may request copies of the database for their students by contacting Robert Kurtz of SBCTC.

DURING ENROLLMENT AT THE FOUR-YEAR INSTITUTION

Continuation or Graduation: Three years after leaving the college, 34 percent of transfer-bound sophomores who transferred had completed the bachelor's degree. Those who transferred with the associate degree were more likely than those without credentials to have completed the BA degree in the three year period (45 percent versus 28 percent). The latter is likely a matter of faster pace toward the degree for those with the credential rather than differences in potential for degree attainment.

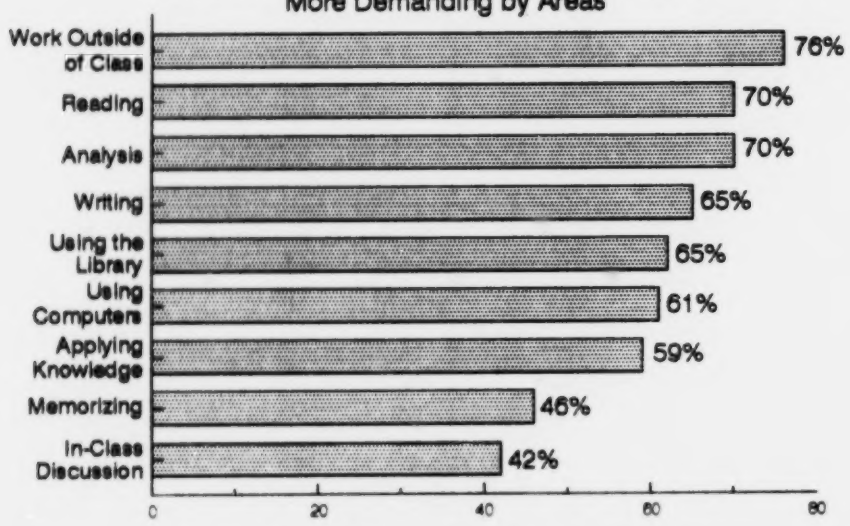
Most transfers who had not yet graduated with the BA degree had made substantial progress toward that goal with 64 percent completing 60 or more credits. A smaller group, 11 percent, had made little progress, accumulating fewer than 30 credits in three years. Overall, 90 percent of the sophomore transfers were either still enrolled or had graduated within three years of leaving the four-year institution.

To Transfer With or Without the Associate Degree: While the transfer agreements with four-year institutions favor associate degree holders, the 1991 survey of transfer-bound sophomores found that most transferred without the degree. Of those who transferred, 64 percent had not completed the associate degree.

For transfers who held sophomore status at the community college before transfer, the completion of the associate degree does not appear to be related to continuing at the four-year college. There were slight differences in continuation/baccalaureate graduation rates between those with and without the associate degree (92 versus 89 percent) but such differences are well within the range of error of the survey.

Comparisons: While grade records show that community college transfers perform essentially the same as their native student counterparts in similar courses, the transfer students surveyed in 1991 regarded courses in which they enrolled at the four-year institution to be more demanding than those taken at the community college. This may in part be due to the junior/ senior level of the courses. These advanced courses may have required stronger research and critical thinking skills than the freshman/ sophomore courses taken earlier.

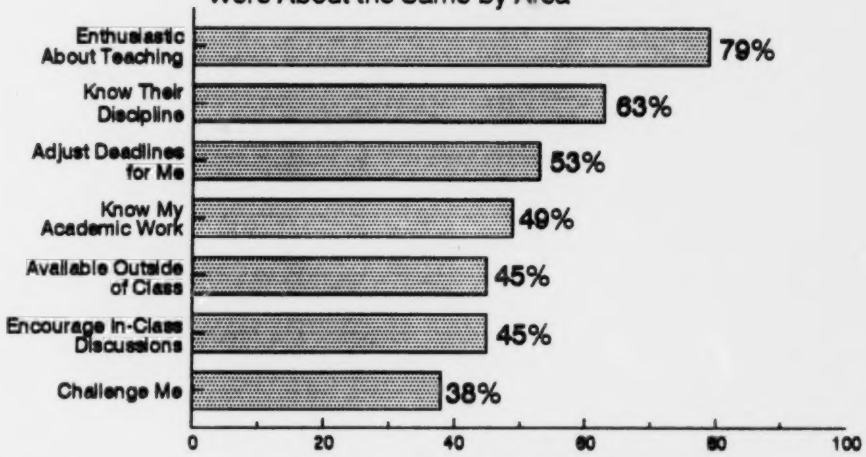
Figure 1
Percent of Transfers Reporting Four-Year Courses More Demanding by Areas



Source: Survey of Academic/Transfer Students, 1991

Community college transfers evaluated faculty as being similar in characteristics at four-year institutions and community colleges, except regarding "challenge me" where 55 percent of the respondents said the four-year faculty were "more".

Figure 2
Percent of Transfers Reporting Faculty
at Community Colleges & Four-Year Institutions
Were About the Same by Area



Source: Survey of Academic/Transfer Students, 1991.

One of the reasons community college transfers may require more years than native students to the bachelor's degree is that more of them must work to fund their junior and senior year. As indicated earlier, community college transfers who completed the bachelor's in 1988 were more likely than their counterparts who started at the four-year institution to be working full-time. The Bachelor's Degree Survey also found that the community college transfers were less likely to have money from savings or to have scholarships to aid them while at the four-year institution as shown in Table IX.

Table IX
Percent Reporting at the Four-Year Institution by Funding Source

	Community College Transfers	Four-Year Natives
Used Savings from Work	61%	75%
Scholarships	25%	44%

Source: Bachelor's Degree Survey, 1988.

IMPLICATION OF FINDINGS

These findings reinforce the important role that community colleges play in the achievement of the bachelor's degree. They also echo findings of other outcomes studies showing that students who make substantial progress toward their intended goal do quite well as measured by transfer rates and indicators of quality of employment, but that many who aspire to high goals such as transfer are not retained at the community college long enough to make the progress needed for goal achievement. Despite difficulties students may encounter at the point of transition, especially at this time when some Washington four-year institutions are rationing spaces for qualified transfer students, the chief influence on transfer rates is early attrition.

These findings also suggest that Washington state could improve transfer rates by increasing financial aid, especially scholarships, for high achieving transfer students. Additional aid should both increase the number of transfer-bound students able to transfer and decrease time to degree once students are at the four-year institution.

RESEARCH-BASED INTERVENTION STRATEGIES TO IMPROVE PERSISTENCE

The following summary of strategies to improve persistence is based on the research on student retention. These strategies were developed by Amaury Nora and published in the **Higher Education Handbook of Theory and Research**, Volume IX, 1993 (Nora, 1993).

Academic Integration: Pairing faculty and students for mentorships, freshman year experience programs, learning communities, study skills workshops, collaborative learning programs, summer programs for high school student.

Educational Goal Commitments/Institutional Commitments: Counseling/advising programs, transfer centers, career exploration centers, support services for special populations (day care, peer counseling for ethnic and race groups).

Social Integration: Cultural programs and activities related to race and ethnic groups, student peer networks between community college and four-year students with similar backgrounds, targeted extracurricular activities, clear evidence that the institution is interested in each student's success.

Financial Assistance: Scholarships, work study jobs on-campus, assistance with financial planning, encouragement for students in financial stress to remain in college.

CONCLUSION

Washington community colleges play a critical role in the award of the bachelor's degree. A third of all degree recipients took a substantial portion of their courses at the community college. The community college transfers who successfully complete their degree are more likely than native students to be of lower socio-economic status and to have performed less well in high school. Students who make substantial progress in classes at the community college have a high probability of transferring to the four-year institution of their first choice and of graduating with a BA degree. Factors limiting transfer and fast progress toward graduation include the lack of financial resources.

Students intent on completing the bachelor's degree who start at a Washington community college, or any community college in the nation for that matter, must have a lot going for them to assure success. While they face some hurdles at the point of transition and again while at the four-year institution, the chief hurdle is persisting at the community college. Colleges can address this hurdle with a multifaceted approach to improving retention. Strategies for improvement should focus on (1) financial aid, (2) integration into the academic community, (3) social integration and (4) strengthening of student commitment to their goal.

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